

Appl. No. 09/915,865

Attorney Docket No. 2009-174 (81841.0155)  
Customer No. 26021REMARKS/ARGUMENTS:

Claim 7 is amended. Support for the amendment to claim 7 can be found at page 21, line 25 of the Applicant's specification. Claims 7, 8, and 10-14 are pending in the application. Reexamination and reconsideration of the application, as amended, are respectfully requested.

CLAIM REJECTIONS UNDER 35 U.S.C. § 103:

Claims 7, 8, and 10-14 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Layne et al. (U.S. Patent No. 5,968,731 A) in view of Ozawa et al. (U.S. Patent No. 5,988,857 A). The Applicant respectfully traverses this rejection as to amended claim 7.

Claim 7, as amended, is as follows:

An apparatus for mechanical control of an automated immunochemistry or chemistry instrument which has a multiplicity of subsystems for performing immunochemistry or chemistry assays, the apparatus for mechanical control comprising:

a mechanical control system having both object-orient features and real-time features for control of the operations of the multiplicity of subsystems; wherein the subsystems operate on, transform, or transfer passengers; wherein said mechanical control system comprises a scheduler configured for determining the times when one or more sets of operations of said multiplicity of subsystems must be executed; wherein said scheduler is configured for determining whether said multiplicity of subsystems is available for performing said immunochemistry or chemistry assays, wherein said scheduler can change the order in which said passengers are operated on, transformed, or transferred, during said sets of operations; and

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a passenger template base class comprising facilities configured for passenger creation, destruction, enumeration and state recovery.

The Applicant respectfully submits that Layne and Ozawa cannot render amended claim 7 obvious because the cited references fail to teach or suggest that the scheduler can change the order in which the passengers are operated on, transformed, or transferred, during the sets of operations.

Layne has no teaching or suggestion that the order of samples can be changed while the automated instruments are up and running.

Layne states,

"Before performing actual tests, computer simulations mimic SLM 134 controllers and adhere to critical timing events of the candidate tests procedures. This virtual instrument then generates start-up times and optimizes the sequence by which all tasks take place. TSCs users include laboratory technicians who load materials into automated instruments and supervise their performance on a daily basis (complete runs can amount to about 10,000 tasks, for example, which far surpass the manual scheduling capabilities of humans) and engineers who develop and debug new instruments or look for ways to improve on existing ones. TSCs 136 are capable of dynamic retasking, which, for example allows adding and subtracting assays while automated instruments are up and running--a particularly useful feature for clinical work." (Layne, column 9, lines 45-59).

Thus, according to Layne, assays can be added or subtracted while the automated instruments are up and running. However, there is no teaching or suggestion that the order of samples can be changed while the automated instruments are up and running.

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Ozawa cannot remedy the defect of Layne and is not relied upon by the Examiner for such. Instead, the Examiner cites Ozawa for teaching an automatic processing system, which utilizes object-oriented and real-time features, for the control of the operations of a multiplicity of subsystems (i.e., processing systems).

It is an aspect of the present invention that the scheduler determines that all the resources that a test needs are free when the test needs them. A test can be run if and only if all resources needed by the test may be reserved at the times that the test requires them. With the exception of supply resources, it is always possible to schedule a test if we look far enough into the future. (Applicant's specification, at page 23, lines 11-13). Once the scheduler determines that all the resources that a test needs are free when the test needs them, the Route object is constructed based on the resources that are reserved. If all the resources are not available when they are needed, the scheduler tries again, looking farther into the future. After the route is constructed, the actions are sent to the sequencer. (Applicant's specification, at page 23, lines 14-18).

It is another aspect of the present invention that the scheduler may also be responsible for: Inserting a stat test request, based on a notification from the SPU; Scheduling a maintenance action, based on a notification from the SPU; Estimating walkaway time based on current supplies; Canceling a scheduled, waiting test; Canceling all scheduled, waiting tests; and Canceling all tests, even the running ones. (Applicant's specification, at page 21, line 24-p. 22, line 3). Consequently, the present invention offers the advantage that samples can be prioritized; and the order in which the samples are run can be changed, even while the automated instruments are up and running.

In light of the foregoing, Applicant respectfully submits that the cited references could not have rendered obvious claim 7, because the cited references fail to teach or suggest each and every claim limitation. Claims 8 and 10-14 depend

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from claim 7 and cannot be rendered obvious for at least the same reasons as claim 7. Withdrawal of these rejections is thus respectfully requested.

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (310) 785-4674 to discuss the steps necessary for placing the application in condition for allowance.

If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-1314.

Respectfully submitted,

HOGAN & HARTSON L.L.P.

Date: June 28, 2006

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